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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,029	12/30/2003	Roger M. Ikeda	TI-37411 (032350.B583)	9231

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EXAMINER
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RAHMJOO, MANUCHER

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/749,029	IKEDA, ROGER M.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mike Rahmjoo	2628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/30/03</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1- 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per applicant's specification in paragraph [0049] and also throughout the specification, applicant recites "In most cases, after amplification, each of the clipped pixels will generate a color that is different from the color that was intended to be displayed. The clipped pixels generate a different color because the clipped pixels typically generate a hue that is substantially different from a hue that was intended. Moreover, the displayed color will be desaturated (e.g., having washed out appearance). To minimize the impact of clipped pixels on a displayed image, formatter 210 implements a hue correction algorithm that ensures the clipped pixels are maintained in the desired hue of the intended color".

There are no set standards for realization of human "intention" and or "desire". Merriam Webster's Collegiate Dictionary, 10<sup>th</sup> Edition defines intend as "to have in mind as a purpose or goal". As per definition provided a purpose or goal in one's mind is almost impossible to picture until it is put in concert and tangible terms as on paper or by displaying through processing of computer codes. Therefore, the subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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As per claim 1 line 3 applicant recites "...a gain module operable to amplify...". It is unclear said gain module does or does not perform any amplification.

As per claim 1 line 7 applicant recites "...one clipped pixel is capable of...". It is unclear if one clipped pixel does or does not generate a color.

As per claim 1 line 8 applicant recites "...a hue that is substantially different...". Use of the word "substantially" makes the claim language indefinite.

As per claim 1 line 9 applicant recites "...a color that was intended to be generated...". It is unclear how said intention is measured and or realized. Also it is unclear if any color is generated.

As per claim 1 line 12 applicant recites "...formatter operable to receive...". It is unclear if any receiving is made.

As per claim 1 line 16 applicant recites "...adjusted to substantially the hue...". Use of the word "substantially" makes the claim language indefinite.

As per claim 1 line 17 applicant recites "...color that was intended to be generated...". It is unclear if any color generation is done.

Claims 2- 20 have similar rejections and are rejected with the same rational.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1- 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 1, 9 and 18 applicant claims "a signal". A claimed signal has no physical structure and does not itself perform any useful, concert and tangible results and does not appear that encoded with functional descriptive material falls within any of the categories of patentable subject matter set under 35 U.S.C. 101.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 9,12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Morgan et al (US Patent 6453067), hereinafter, Morgan.

As per claim 1 and 9 Morgan teaches a control module (corresponding to fig. 9 block 904,906, and 912) for use in a display system (corresponding to fig. 9 system 902); a gain module (see for example fig. 9 block 904 and abstract) operable to amplify a signal received by the control module (see for example fig. 9 blocks 904,906, and 912) and to communicate an amplified signal (the RGB signal through block 904) having at least one clipped pixel (see for example the 24 bit RGB signal adjusted based on a maximum of the three primary color in column 13 line 15), wherein the at

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least one clipped pixel is capable of generating a color having a hue that is substantially different than a hue of a color that was intended to be generated by the signal corresponding to for example maximum single color available from a color wheel which produces a sequence of differently colored images and is capable of modulating one of the primary colors in column 4 lines 60- 67; and a formatter coupled to the gain module, the formatter operable to receive the amplified signal and to adjust the hue of the color associated with the at least one clipped pixel, wherein the hue of the color associated with the at least one clipped pixel is adjusted to substantially the hue of the color that was intended to be generated by the signal corresponding to for example fig. 9 block 906 and 912 which perform the hue correction and formatting of data and column 13 line 15 and the abstract.

As per claims 2, 14 Morgan implicitly teaches the formatter includes a hue correction algorithm that adjusts the hue of the at least one clipped pixel to substantially the hue of the color that was intended to be generated by the signal corresponding to hue correction for example in column 9 line 17 through the use of hue correction equations which entail algorithms associated therein.

As per claims 3, 15 Morgan broadly teaches the hue correction algorithm adjusts a saturation level associated with the color that was intended to be generated by the signal to a desired color corresponding to saturation correction associated with hue for example column 13 lines 8- 17.

As per claims 6, 16 Morgan teaches a spatial light modulator

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operable to receive the hue adjusted signal corresponding ( block 914 SLM of fig. 9) to for example fig.9.

As per claims 7, 17 Morgan teaches the spatial light modulator is selected from the group consisting of a digital micro-mirror device, a reflective liquid crystal modulator, and a light emitting diode modulator corresponding to for example column 3 lines 25- 30 which discloses LCD and DMD (digital micro mirror device).

As per claim 8 Morgan broadly teaches a memory coupled to the formatter and capable of storing data associated with a hue correction algorithm corresponding to for example RAM banks a, b; a video processing module (see for example block 906 of fig. 9) coupled to the gain module and capable of processing the signal received by the control module on a frame-by-frame basis corresponding to for example column 6 line 62 wherein video is processed on the basis of RGBW and stored; Morgan implicitly teaches a processor (see for example column 2 line 30 for the image data processing system which deals with words or bits of data as an indication of processing performed through the system) capable of determining a position of an adjustable aperture based at least in part on a maximum number of clipped pixels corresponding to for example column 4 lines 60- 67 wherein maximum color is available through a color wheel as corresponding to an adjustable aperture.



***Allowable Subject Matter***

Claims 18- 20 are allowed.

Claims 4-5, 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US PAP 2002/ 0012073

US PAP 2003/ 0222991

### Inquiry

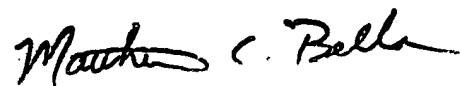
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

February 2, 2007



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